

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|--|---|--|
| Applicant's or agent's file reference 21000524 | FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. | |
| International application No. PCT/EP 02/ 14655 | International filing date (day/month/year) 20/12/2002 | (Earliest) Priority Date (day/month/year) 28/12/2001 |
| Applicant JOMED N. V. | | |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☒ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

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☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 02/14655

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 13-20
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-9

A device for reshaping a cardiac valve comprising a fixing means, a shape-changing member and delaying means.

2. Claims: 21-30

Apparatus for treating mitral annulus dilatation comprising a proximal stent section, a distal anchor and means for drawing the distal anchor towards the proximal stent section.

3. Claims: 31-33

Apparatus for treating mitral annulus dilatation comprising a catheter, a balloon and a stent.

4. Claims: 34-37

Apparatus for treating mitral annulus dilatation comprising proximal and distal ball segments, each comprising a proximal and distal ball with a lumen and a hollow rod extending therebetween, the ball segments being connected by a connecting segments.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/14655

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61F2/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| Y | WO 01 00111 A (KIMBLAD PER OLA ; SOLEM JAN OTTO (SE)) 4 January 2001 (2001-01-04) page 5, line 31 -page 9, line 2 --- | 1-12 |
| Y | WO 01 89426 A (BIORING S A ; ANDRIEU RAYMOND (CH); KALANGOS AFKSENDIYOS (CH); LE G) 29 November 2001 (2001-11-29) column 2, line 24 -column 10, line 9 --- | 1-12 |
| P,A | US 2002/124857 A1 (SCHROEPPPEL EDWARD A) 12 September 2002 (2002-09-12) paragraph '0032! - paragraph '0048! --- | 1-12 |
| P,X | WO 02 076284 A (VIACOR INC) 3 October 2002 (2002-10-03) page 18, line 14 -page 28, line 7 --- -/-- | 21-24,26 |

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

8 document member of the same patent family

Date of the actual completion of the international search

26 May 2003

Date of mailing of the international search report

05. 06. 2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-2016

Authorized officer

Mary, C

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/14655

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| P,X | WO 02 096275 A (VIACOR INC) 5 December 2002 (2002-12-05) page 14, line 17 -page 27, line 3 --- | 21,23,26 |
| P,X | WO 02 062263 A (VIACOR INC) 15 August 2002 (2002-08-15) page 16, line 9 -page 21, line 3 --- | 21,23,26 |
| A | US 5 824 071 A (SHMULEWITZ ASCHER ET AL) 20 October 1998 (1998-10-20) figures 5-7 --- | 21 |
| P,X | WO 02 078576 A (VIACOR INC) 10 October 2002 (2002-10-10) page 24, line 1 -page 58, line 2 --- | 31-33 |
| A | US 6 203 556 B1 (NASH JOHN E ET AL) 20 March 2001 (2001-03-20) figures 9F,10C ----- | 34 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 02/14655

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|--|--|
| WO 0100111 | A | 04-01-2001 | SE 514718 C2 US 6210432 B1 AU 6038600 A BR 0012314 A CA 2369129 A1 CN 1359279 T EP 1196113 A1 JP 2003503101 T WO 0100111 A1 SE 9902455 A US 2001018611 A1 | 09-04-2001 03-04-2001 31-01-2001 19-03-2002 04-01-2001 17-07-2002 17-04-2002 28-01-2003 04-01-2001 30-12-2000 30-08-2001 |
| WO 0189426 | A | 29-11-2001 | AU 1407501 A EP 1284688 A1 WO 0189426 A1 | 03-12-2001 26-02-2003 29-11-2001 |
| US 2002124857 | A1 | 12-09-2002 | US 6395038 B1 US 6024764 A | 28-05-2002 15-02-2000 |
| WO 02076284 | A | 03-10-2002 | US 2002183836 A1 US 2002183835 A1 US 2002183837 A1 WO 02062408 A2 WO 02076284 A2 US 2002183841 A1 WO 02078576 A2 US 2002183838 A1 WO 03015611 A2 WO 03034947 A1 | 05-12-2002 05-12-2002 05-12-2002 15-08-2002 03-10-2002 05-12-2002 10-10-2002 05-12-2002 27-02-2003 01-05-2003 |
| WO 02096275 | A | 05-12-2002 | WO 02062408 A2 WO 02096275 A2 US 2002183835 A1 US 2002183837 A1 | 15-08-2002 05-12-2002 05-12-2002 05-12-2002 |
| WO 02062263 | A | 15-08-2002 | WO 02062263 A2 WO 02062408 A2 US 2002183835 A1 US 2002183836 A1 | 15-08-2002 15-08-2002 05-12-2002 05-12-2002 |
| US 5824071 | A | 20-10-1998 | US 5655548 A US 6186972 B1 US 6447539 B1 AU 4352497 A EP 1011523 A1 JP 2001503291 T WO 9810714 A1 | 12-08-1997 13-02-2001 10-09-2002 02-04-1998 28-06-2000 13-03-2001 19-03-1998 |
| WO 02078576 | A | 10-10-2002 | US 2002183835 A1 WO 02062408 A2 WO 02076284 A2 WO 02078576 A2 US 2002183841 A1 US 2002183838 A1 WO 03015611 A2 WO 03034947 A1 | 05-12-2002 15-08-2002 03-10-2002 10-10-2002 05-12-2002 05-12-2002 27-02-2003 01-05-2003 |
| US 6203556 | B1 | 20-03-2001 | US 5980548 A | 09-11-1999 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 02/14655

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| US 6203556 | B1 | US 2003073973 A1 | 17-04-2003 |
| | | US 2001008969 A1 | 19-07-2001 |
| | | AU 1079599 A | 17-05-1999 |
| | | CA 2307865 A1 | 06-05-1999 |
| | | EP 1027013 A1 | 16-08-2000 |
| | | WO 9921510 A1 | 06-05-1999 |
| ----- | | | |